

DOCUMENT RESUME

ED 224 482

IR 050 015

TITLE New Hampshire Automation Task Force. Final Report.
INSTITUTION New Hampshire Library Association, Concord.
PUB DATE Apr 82
NOTE 85p.; Funded by a Library Services and Construction Act (LSCA) III grant.
PUB TYPE Legal/Legislative/Regulatory Materials (090) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC04 Plus Postage.
DESCRIPTORS Check Lists; *Computer Output Microfilm; Interlibrary Loans; *Library Automation; Library Cooperation; Library Networks; Library Surveys; National Surveys; *Online Systems; Shared Services; State Libraries; *State Programs; State Surveys; Tables (Data); *Union Catalogs

IDENTIFIERS Library Statistics; *New Hampshire

ABSTRACT

This brief task force report looks at the current manual union catalog based in the New Hampshire State Library, and recommends the institution of a computer output microform (COM) system, and the eventual creation of an online statewide union catalog. An executive summary provides a listing of 15 specific recommendations based on a 1981 needs survey of public, academic, school, and special libraries in New Hampshire, and various studies on union catalogs commissioned from Warner-Eddison Associates, Inc. Appendices, which comprise the major part of the report, include grant submission guidelines; results of the 1981 library survey assessing the need for an automated statewide union catalog, collecting interlibrary loan statistics, and documenting the use of microform and automated equipment currently in use in New Hampshire libraries; and reports from Warner-Eddison, including the results of a survey covering the current provision of statewide union catalogs and future plans for automating these catalogs in 49 states, a discussion of concerns related to automated union catalogs, and a comparison of the advantages and disadvantages and costs of card (manual), COM, and online systems. A bibliography on statewide union catalogs is also provided. (ESR)

* Reproductions supplied by EDRS are the best that can be made *
* from the original document. *

ED224482

U.S. DEPARTMENT OF EDUCATION
NATIONAL INSTITUTE OF EDUCATION
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

- This document has been reproduced as received from the person or organization originating it.
- Minor changes have been made to improve reproduction quality.
- Points of view or opinions stated in this document do not necessarily represent official NIE position or policy.

New Hampshire Automation Task Force

Final Report

April 1982

Submitted for the Task Force by:
Carol Nelson, Project Administrator

Publication of this report is made possible
by an LSCA III grant awarded to the
New Hampshire Library Association

"PERMISSION TO REPRODUCE THIS
MATERIAL HAS BEEN GRANTED BY
New Hampshire Automatic

Task Force

Cover design: Christine Urban

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)."

IR050015-

New Hampshire Automation Task Force

Members: Shirley G. Adamovich, New Hampshire State Library, Concord, N.H.

Lynwood Bryant, Samuel H. Wentworth Library, Center Sandwich, NH

Elizabeth Hamlin-Morin, New Hampshire Vocational-Technical College, Manchester, NH

Patience K. Jackson, Daniel Webster College, Nashua, NH

Carol Nelson, New Hampshire Library Association, Concord, NH

Sherman Pridham, Portsmouth Public Library, Portsmouth, NH

James Smith, Digital Equipment Corporation, Merrimack, NH

Philip C. Wei, Plymouth State College, Plymouth, NH

Kathryn Wendelowski, Littleton Public Library, Littleton, NH

Special Advisors: John Linford, NELINET, Newton, MA

Laima Mockus, NELINET, Newton, MA

Ruth Pyne, Kelley Library, Salem, NH

Clare Ryan, New Hampshire State Library, Concord, NH

Michael Wang, New Hampshire State Library Concord, NH

Project Administrator: Carol Nelson

Consultant: Lois Lyman, Warner-Eddison Associates, Inc., Cambridge, MA

Stenographer: Sheila Cassavaugh, Legal Deposition Service, Concord, NH

Word Processing: Computer Applications Unlimited, Inc., Concord, NH

Printing: Rodney King, New Hampshire State Library, Concord, NH

Thomas Printing & Copying, Concord, NH

TABLE OF CONTENTS

Executive summary	1
Final report	3
Appendix	
Grant submission guidelines	17
New Hampshire library survey	
Summary	19
Distribution and response	20
Comparative library data	27
Warner-Eddison Associates reports	
WEA research summary	31
Introduction	33
Statewide union catalog survey results	35
States with statewide union catalogs	37
States with plans to have automated union catalogs	39
States with no plans for automated union catalogs	41
WEA survey of the states	43
Problems and concerns related to automated union catalogs.	66
Cost saving measures evident from survey data	68
Advantages/disadvantages - card, com and online catalogs	70
Cost factors - card, com, online	72
Disposition of union catalogs	75
Statewide union catalogs: a current bibliography	77
States and regions in depth	81
Colorado	82
Nebraska	83
New Jersey	84
Project LEAP	85
Virginia	86

1. INTRODUCTION

The New Hampshire Automation Task Force was appointed by the New Hampshire Library Association to look into the possibility of automating the union catalog (a central file having a description and location of books in a number of libraries) now operated by the New Hampshire State Library.

In order to assist the Task Force in judging the feasibility, costs and benefits of such a project, Warner-Eddison Associates, Inc. was instructed to survey the development of union catalogs in the various states and regions of the United States. In the event that the Task Force determined that automation of our union catalog was both feasible and cost-effective, it was requested to outline the steps necessary to develop a new form of catalog and to recommend policies and procedures to guide the development.

It was clear at the outset that the problems of the union catalog could not be considered in isolation. The Task Force reviewed the state of the art of information processing and its application to various library functions in recent years. Therefore, while concerned first with the immediate problem of the union catalog, the Task Force found it essential to keep in mind the more general objective of strengthening cooperation and communication among New Hampshire libraries. The improvement of their internal operations by modern information technology should be a consideration in any automation program.

2. CURRENT UNION CATALOG

The New Hampshire Union catalog, in operation since 1938, has become difficult and expensive to maintain and those responsible for it feel that it cannot continue to be operated in its present form. Operating a card catalog by traditional manual methods is very labor intensive, and with rapid daily growth, the cost per transaction increases proportionately. Slow service, a mounting backlog of catalog cards, incomplete records and the lack of subject

access reduce the effectiveness of the catalog at a time when demands for ILL and resource sharing among libraries is increasing. If resource sharing is important to New Hampshire libraries, then something must be done about the existing union catalog.

Progress in the art of information storage and processing over the last ten or fifteen years has been astonishing. While the costs of labor and materials have doubled, the costs of handling information have been cut to one-tenth of what they were. Future cost reductions are predicted as technology improves. Library routines are procedures which could be handled automatically. Computer technology has already been applied to library operations. The pioneering work has been done, the technology is known, and the necessary equipment is available. National library computer networks are now open for business, making available large masses of bibliographic data in machine readable form for cataloging. Such a system, OCLC, Inc., has eight million items on its tapes. A library that wishes to take the automation path can use these existing stores of data to reduce the cost of the necessary first steps of converting its own catalog into machine readable form. The cost of acquiring and installing the necessary hardware and software is still high, but not nearly so high as it used to be. The idea of putting a card catalog into a computer and making it available online, clearly visionary ten years ago, has been done.

Current technology makes possible a much better union catalog than we have now. It can be extended, in theory, to all libraries in the State and it can include all types of material. Our present interlibrary loan system could grow into a comprehensive and efficient system of resource sharing that could give every citizen access to all the library resources in New Hampshire, even from a small town. Such a union catalog would also be helpful in the internal operations of a library: it could guide book acquisition, facilitate cataloging, and be the basis for a circulation control system. It may well be that libraries of the future, confronted with

the rising costs of books, not to mention the costs of acquiring, cataloging and storing them, will be forced into wider resource sharing, especially for the more expensive and less frequently used books. At the moment, such a comprehensive resource-sharing system may seem remote, and it is a distant goal that will have to be approached gradually, but whatever first steps are taken now should be consistent with the ultimate objective of reducing costs by improving resource sharing among libraries.

3. TASK FORCE PROCESS

The Task Force is a representative body drawn from New Hampshire academic, special, public, state and vocational-technical college libraries. Task Force activities have been funded by an LSCA III grant awarded to the New Hampshire Library Association, August 20, 1981. The Association initiated the grant application in order to explore the feasibility of an on-line union catalog. The Martin Report (1978), the A.D. Little study (1967) and the Liaison Planning Committee Report (1980) address the need to create a computerized union catalog.

After an initial public meeting in October 1981 to review Warner-Eddison Research regarding statewide union catalogs, the Task Force held a series of meetings to consider the costs of manual, computer-output-microfilm (COM) and online catalogs. Members reviewed states and regions selected for further study, automation issues and the concerns of New Hampshire libraries. As part of the process, the Task Force undertook a survey to:

1. Assess the need for a proposed, automated statewide union catalog.
2. Collect interlibrary loan statistics.
3. Document the use of computer terminals and other automated equipment in use presently.

Libraries surveyed stated these preferences:

1. Expansion of the current union catalog, which is limited to adult non-fiction books to include more materials held by libraries.
2. "Need to know" which library in the state owns a book in order to borrow it.
3. Use of computer applications to create and maintain the union catalog.
4. A means of rapid and easy access to the information.
5. A way to deliver these books quickly from library to library.

Warner-Eddison Associates, Inc. issued reports on the following:

1. Status of statewide union catalogs in 49 states.
2. Survey of card, COM and online catalogs - costs, advantages and problems of each format.
3. Review of states and regions selected for further study by the Task Force.
4. Survey of NH corporations to locate funding sources.

Complete reports will be found in the appendix.

4. INTERLIBRARY LOAN IN NEW HAMPSHIRE

The Task Force identified the State Library, University of New Hampshire, Plymouth State College, St. Anselm College, Manchester Public Library, and Nashua Public Library as the most active members of the statewide Interlibrary Loan network. Since libraries consider interlibrary loan (ILL) to be a small percentage of their activity, ILL requests alone do not justify major changes in the statewide system. However, comments solicited from libraries in the Task Force survey indicated a strong interest in finding books as close to home as possible. Surveys by national networks have shown that once libraries know who owns a book, they borrow from the closest source or the library that responds the fastest. The Task Force feels

that direct access for the local library to a statewide file of all library holdings would increase the speed of delivery, change the pattern of ILL and bypass the manual union list and State Library.

5. LIBRARY AUTOMATION IN NEW HAMPSHIRE

Few libraries in NH have purchased automated equipment such as computerized circulation systems. Only the Fiske Free Library, Claremont has automated its circulation files via the city computer. Of the libraries surveyed by the Task Force, the larger academic libraries, the State Library, special libraries and Nashua Public Library own computer terminals. Public libraries in Claremont, Nashua and Peterborough have installed mini/micro-computers for public use. Pelham Public Library introduced minicomputers for staff use and public awareness through Project CAP. The University of New Hampshire library utilizes an automated acquisition system (BATAB) for book orders while Bedford Public Library shares a computer terminal at Merrimack Public for book orders. The State Library and five academic libraries are members of OCLC, a national library network which provides cataloging and related services. A complete inventory of equipment will be found in the appendix.

6. OCLC MEMBERS AND RECORDS

Future automated library systems will be most economical if funds are expended to broaden the machine readable data base of over 300,000 volumes created by five large academic libraries in the course of their automated cataloging activities since the mid-seventies. In addition, since mid-1980, the State Library has been doing automated cataloging via OCLC for both its own acquisitions and those of the 250 Maine, Vermont and New Hampshire public libraries. For the purpose of this study, the major collection of Dartmouth College has been excluded, since it participates neither in the New Hampshire College and University Consortium nor the present union catalog.

A statistical breakdown of records available and retrievable on OCLC in December 1981 would read as follows:

University of New Hampshire	127,500
Plymouth State College	87,900
St. Anselm's College	57,900
Keene State College	20,200
New England College	10,400
New Hampshire State Library	<u>4,000</u>

307,300 volumes

Each of the above libraries owns a computer terminal which retrieves cataloging information from the OCLC data base and identifies libraries who own the book. These libraries may bypass the existing NH union catalog by using OCLC.

It is conjectured that these volumes will overlap as follows; 50% will be in only one library while the others will be owned by two or more libraries. The machine readable data base currently represented by the above figure will total 150-200,000 titles with multiple locations for many of these.

Public libraries handled by the Centralized Card Service currently display no location symbol on OCLC. Members are unable to identify which individual public library owns any of the 12,000 volumes cataloged by the Card Service. These records can be removed from OCLC and added to the records of academic libraries, thus providing a machine readable data base. The size of this data base, then is perhaps, 320,000 records representing 156,000-206,000 titles.

All of these machine readable records can be stripped from OCLC tapes at a cost of about \$20,000. This machine readable data base could be merged by a vendor, then manipulated in many ways, according to available funds and established objectives. The data base can also be inexpensively updated on a periodic basis.

7. MACHINE READABLE DATA BASE

An obvious drawback to the existing machine readable data base is the lack of school, medical, special, small college, large public and state vocational-technical college library holdings in NH. In addition, the present manual union catalog and state library Centralized Card Service records are restricted to adult non-fiction books. The increasing demand for books of all types, rising book prices and shrinking budgets have encouraged librarians to create regional union lists, union lists of serials and routing systems to locate books for library users. The costs of OCLC services has prohibited direct public library participation but libraries who are members of the Centralized Card Service are contributing records to a machine readable data base. However, the larger public libraries, with the exception of Manchester, had remained ineligible for the card service until the passage of revised library legislation in 1981.

Therefore, the current union list, whether available through the State Library or OCLC, does not reflect the diversity or specialization of library holdings in New Hampshire. A significant number of volumes, estimated at 5 million are accessible only through regional union lists, by telephone inquiry or the present manual file. The geographic distribution of these resources, the size of the current machine readable data base and the need for libraries to identify each other's holdings, encourages the Task Force to recommend that the data base be expanded to include not only all types of materials but also all New Hampshire libraries who are willing to contribute their holdings.

8. ADVANTAGES OF A COMPREHENSIVE MACHINE READABLE DATA BASE

The value of a comprehensive data base can be justified by the need to bring information to the New Hampshire citizen. In a sense, the machine readable data base will become a statewide library larger than any existing library. The construction of

such a data base and subsequent applications should make it possible for the library user to find a book owned by another library via his local library or ultimately, his television or home computer.

Membership in OCLC, the use of MARC records and the purchase of a computerized circulation system are the current means of creating a machine readable record. Once the information describing a book is entered into this format, which can be scanned and manipulated by computers rather than manual means, then subsequent uses become cost-effective. The Task Force recommends mandatory compliance with the most recent LC MARC format and national cataloging codes. States that have merged OCLC records with those developed by other sources have determined that initial standardization reduces subsequent quality control costs and problems. The MARC record can be used in full or abbreviated form which enhances its use for cataloging and circulation control. Adherence to these standards will allow computer updating of the data base from Library of Congress authority files.

9. RECOMMENDATIONS

The Task Force acknowledges the diverse needs of New Hampshire libraries and recommends more effective use of resources, money, staff and materials, through planned automated systems. Libraries should accelerate and improve library cooperation via automated systems which can take over manual routines. The Task Force recognizes the uneven financial resources and collection strengths of libraries and encourages future efforts to overcome this problem.

During this study, the Task Force learned that New Hampshire lags behind many states which have initiated state-wide union catalogs. These states have merged machine readable records from a number of libraries to create a single data base. While the predominant use of this file is to produce

a COM (computer-output-microfilm) catalog, records can be retrieved for individual libraries to use in computerized circulation systems and online catalogs. If New Hampshire libraries wish to increase resource sharing and related library services, they will build a system compatible with the goal of long-term, multi-function use.

To begin with, libraries should build systems from packaged components rather than unique, in-state developed systems. Turn-key systems and national networks are proven means of using automated technology which has present application and future benefits. Time and money to design, implement and initiate a specialized system squanders resources which could be better used to expand library cooperation and resource sharing statewide.

Retrospective conversion of the manual union catalog, as existing at the State Library, should not take place at this time. The significant number of obsolete holdings, due in part to the closing of several college libraries, makes conversion of old records a lesser priority in a state needing to expand its data base to include more libraries and newer materials. However, the OCLC records of the State Library and the Centralized Card Service are the start of a machine readable data base that could be converted to a COM or online catalog.

The State Library should stop filing cards for the five OCLC member libraries in New Hampshire and access the holdings of these libraries via an OCLC terminal purchased for this purpose. The existing union catalog should be continued until a new format is in place. During the interim, holdings could be converted into machine readable format on an exception basis, i.e., only those titles requested for interlibrary loan.

The Task Force urges the State Library and OCLC members to explore the feasibility of merging their records to create a state-wide machine readable data base. Possession of this data is a one-time expenditure of funds to benefit a large number

of libraries. The most immediate and least costly option for using this data base would be a vendor-produced COM catalog with author, title, and subject listing. It would cost \$35,000-50,000 for 300 copies, to be placed in libraries throughout the state. Individual libraries not owning a microfiche reader would need to acquire one.

A COM catalog is an initial, achievable step towards automation. States now planning for online formats have produced COM catalogs at some point. A COM catalog for New Hampshire libraries from the current data would demonstrate the tangible benefits of automation to the general public and the library community. Although the COM format presents a cheap, quick catalog for wide distribution, it would do little to solve the problem of giving state-wide access to any large number of titles and expose several libraries to an enormous increase in requests for loans. No retrospective holdings from a large public library would be included, nor would any of the 19 smaller academic libraries, representing 341,000 additional volumes, many of them unique. The problem of how to retrieve the estimated 5 million additional volumes throughout the state would in no way be addressed by the first COM catalog. Nevertheless, a COM catalog can not be overlooked as a means to provide the initial exposure to automation providing that subsequent editions include more libraries.

After examining the size of the current machine readable data base and the resources of New Hampshire libraries, the Task Force has concluded that an online, statewide, union catalog is an ultimate goal once the data base is constructed. The present state-of-the-art includes workable technology for catalogs as demonstrated by Dartmouth College and Lowell University. Initial costs estimates to create an online state-wide catalog range from \$225,000-400,000, a sum difficult to justify in the current financial situation. The high maintenance

and telecommunications costs after installation are beyond local library financial resources. However, regional systems may be cost-effective providing that the system can be sustained by local financing after installation.

The purchase of OCLC terminals for the largest public libraries will expand the immediate online union catalog in effect for OCLC numbers while slowing the growth of the manual file. Libraries should be encouraged to share terminals with surrounding libraries to broaden participation. Because OCLC records are stored by NELINET, libraries contribute toward a data base which can be used for future circulation and cataloging applications.

The State Library should investigate the feasibility of expanded card service to libraries not eligible under the present statute. Participation by the vocational-technical colleges, schools, and other libraries would increase the size of the machine readable data base.

New Hampshire libraries should monitor the use and development of turnkey, computerized circulation systems. Libraries with high circulation figures (over 200,000/year) can justify labor savings and eliminate repetitive tasks by purchasing an automated circulation system. Installation would provide a concrete example to the public, elected officials and other librarians that automation can enhance service and keep down future costs. Unfortunately, the siting of New Hampshire libraries makes it difficult to replicate the LEAP regional circulation system installed in five Connecticut public libraries for a capital investment of \$376,073. Clusters of libraries could be tied together in the future and these groups merged to create an online, machine readable statewide data base. However, present telecommunication costs limit online activity to a 30 mile radius of the main computer.

Agreements to purchase or share automated equipment among libraries should be developed prior to application for LSCA or private funds. These agreements substantiate the need for the the system and allow the group to move forward with request for proposal (RFP), bid process and purchasing during the two years allowed for LSCA expenditures.

The Task Force recommends careful selection of proposals to automate cataloging and circulation functions, as well as related activities, such as telecommunications. Preference should be given to the creation and expansion of a New Hampshire machine readable data base. Guidelines, such as those set forth in the appendix, should be adopted by the New Hampshire Advisory Council on Libraries.

The ultimate solution - a data base comprised of the holdings of all libraries who wish to participate - must be initiated to improve resource sharing among New Hampshire libraries. The Task Force encourages a coordinated but flexible approach to develop a statewide data base and library network. A COM catalog is an immediate application of the data base. The Task Force notes that COM has been used in many states, can be implemented quickly and will serve a number of New Hampshire libraries well. However, larger libraries will wish to consider internal online applications as COM costs rise and the data base develops. It must be recognized that a COM catalog and other automated applications will only take place when the data base is constructed.

The Task Force realizes that complex decisions will be necessary to carry out its recommendations. To this end, the Task Force advises that its work be continued by a representative body under the coordination of the State Library.

15

APPENDIX

GRANT SUBMISSION GUIDELINES

1. Proposals to purchase computerized systems should include system requirements, request for proposals, vendor evaluation, procurement/implementation schedules, and acceptance tests to protect the library or group of libraries from inadequate system or vendor performance.
2. Vendors should be established firms with demonstrated ability to carry out grant proposal. Onsite visits and contact with libraries or library systems using installed hardware and software are encouraged.
3. Hardware and software purchases should be adaptable to future enhancements of the system.
4. Libraries must be willing to contribute their machine-readable records to the statewide data base. Conversely, those libraries who are members of the statewide data base would be able to remove their own records for use in automated circulation systems and other applications.
5. Agreements to share systems or hardware should be developed prior to application for LSCA funds. Suitable documentation must accompany the proposal.
6. A library or group of libraries seeking LSCA funds for hardware and other startup costs should indicate the means of funding the system once initiated.
7. The system must adhere to most recent LCMARC format and national cataloging codes. Records generated are acceptable in abbreviated MARC format. Obviously, adherence to MARC at the onset will reduce future costs. The system should also accept OCLC records.

Questionnaire Tabulation

The New Hampshire Automation Task Force undertook a library information survey:

1. To assess the need for a proposed, automated statewide union catalog;
2. To collect interlibrary loan statistics; and
3. To document the use of computer terminals and other automated equipment in use presently.

Of those libraries receiving the questionnaire, 87% responded. The libraries surveyed stated these preferences:

1. Expansion of the current file, which is limited to adult non-fiction books, to include more materials held by libraries.
2. "Need to know" which library in the state owns a book in order to borrow it.
3. Use of computer applications to create and maintain the union catalog.
4. A means of rapid and easy access to the information.
5. A way to deliver these books quickly from library to library.

The survey identified these trends:

1. With the exception of Fiske Free Library, Claremont, which has devised a circulation system via the town computer, no other library owns a computerized circulation system. Therefore, standardization of future computer system and equipment purchases would allow libraries to cooperate if desired.

2. Interlibrary loan statistics for public libraries under 10,000 volumes are low, even though 59% of public libraries are this size. A way should be found to make the union catalog available to all the users of these smaller libraries which is independent of their actual contribution.

3. With the exception of Littleton, the most active interlibrary loan users are libraries located in the central and southern tiers of the state. However, the State Library and the largest academic libraries supply the major portion of books requested.

4. The majority of public libraries over 20,000 volumes, and all academic libraries, own equipment to use microforms. However, issuing copies of the union catalog in this fashion to all libraries would require funds to purchase appropriate equipment.

PURPOSE

On November 3, 1981, the NH Automation Task Force distributed a needs survey to a selected number of libraries as part of their planning process. The first half of the form dealt with the scope, format and use of a revised statewide union catalog along with a revised interlibrary loan system. The second half of the form asked for statistical information such as volume size, number of interlibrary loan transactions, microform equipment owned and automated equipment in use.

DISTRIBUTION

The questionnaire was mailed to 78 libraries along with a postpaid envelope for reply. The sample consisted of the 42 libraries who contribute to the existing NH Union Catalog plus a random sample of public, academic, school and special libraries who do not contribute to the current file.

<u>Library Type</u>	<u>Selected For Survey</u>	<u>Return</u>
Public libraries	43	40
Academic libraries	19	14
School libraries	8	7
Special libraries	8	7
	<u>78</u>	<u>68</u>

The 87% return includes a 100% response from all public libraries over 50,000 volumes and state technical colleges selected.

TABULATION

All 68 questionnaires were tabulated by the categories outlined below. However, replies to specific questions were omitted either by the individual or by the compiler when the ranking sequence was invalid.

<u>Library Type</u>	<u>Number of Responses</u>
Public library less than 10,000 vols.	5
Public library 10-20,000 vols.	13
Public library 20-50,000 vols.	12
Public library 50-100,000 vols.	6
Public library over 100,000 vols.	4
Academic library (NELINET member)	5
Academic library	6
NH technical college	3
School library	7
Special library	7
	<u>68</u> libraries

Responses to individual questions follow with a table of statistical information at the conclusion of the report. Details of the tabulation process, complete responses to open-ended questions and additional information may be obtained from the Project Administrator, Carol Nelson.

1. If this catalog were available in your library, how would you use it?

The most important uses of the union catalog would be to locate an item for ILL (88.2%), to answer reference or subject request (70.5%), and to verify bibliographic information (42.6%). It would be helpful, but not necessary, to use the union catalog for collection building purposes, cataloging purposes, and cooperative acquisition. Although it was suggested that the union catalog locate strong subject holdings for patrons who wished to travel, there was little interest in using the union catalog as a replacement card catalog.

2. Rank how your library staff would consult this file.

Library staff would consult the file in this order:

- a. Main entry
- b. Title
- c. Subject
- d. Added entry
- e. Series
- f. Illustrator

Response pattern for this question indicates a strong interest in title and main entry access to the file; several libraries considered these points of equal importance.

3. What types of material should be included in this new file?

Materials ranked (most to least) essential to the union catalog:

- a. Adult non-fiction
- b. Reference materials
- c. Adult fiction
- d. N.H. state documents
- e. U.S. government documents
- f. Juvenile non-fiction
- g. Large print books
- h. Juvenile fiction
- i. 16mm films
- j. Videocassettes
- k. Audio cassettes
- l. 8mm films
- m. Phonograph records

Other materials: AV materials, filmstrips, framed prints, journals, maps, paperbacks, sets of slides.

4. How necessary to your library's varied purposes are each of the following elements from a catalog card that could appear on a record in the Union Catalog?

Nine elements ranked (most to least) essential to the record:

- a. Author
- b. Title
- c. Subject headings
- d. Date of publication
- e. Edition
- f. Publisher
- g. Location code
- h. Format
- i. Call number

5. Which of the following alternatives would make a totally different Union Catalog more workable for your library?

- 53 (77.9%) a. The full catalog with all available book holdings in the state listed.
- 13 (19.1%) b. A smaller catalog of the available book holdings in your library district, with a full catalog at one central location, available for use.
- 2 (3.0%) c. No response.

Fifty-four libraries commented on their preference for a statewide or regional catalog.

--NH is too poor in resources to break it down even further into districts.

--Because some of the larger libraries in the state are not in our district, we would find it most useful to have a catalog with all available book holdings.

--"a" would facilitate ILL transactions with all types and sizes of collections in the state without penalizing unnecessarily the larger libraries.

--Because of our remote location and small budget, we need all the resources available to us...

The smaller public libraries preferred a regional version because it would be cheaper to produce and easier for them to locate items by phone without long distance charges. Larger libraries considered this option expensive and time-consuming.

--A smaller catalog would be preferred because most of our ILL loan materials are general materials, crafts, etc.

--"b" is very similar to what I am now operating with--co-op catalog, backed with state library catalog. A new full catalog would complete the program.

--The smallness of our library as well as the limited use of ILL precludes the necessity of a full catalog. District-wide holdings and direct ILL (rather than through the Concord office) would be most helpful and beneficial.

6. Have you any comments or suggestions about a totally different New Hampshire union catalog that you'd like to offer?

Thirty-two libraries chose to comment.

There was strong interest in expanding the membership to encompass more libraries and to include a wider variety of materials. Several replies commented on the automated system cost in contrast to the need for expanded ILL delivery. Computers should be involved in future work to develop an expanded union catalog and the results should be available in a choice of form--hard copy or microfiche.

--By borrowing directly from other libraries, we might be able to get current items more quickly.

--It should be up-to-date, continually revised.

--The "totally different NH union catalog" should be online from the start. It would be the impetus to all libraries in state to form online network.

7. Rank in order of importance the following aspect of an Interlibrary Loan system, based on a new union catalog.

1. Speed of delivery
2. Types of materials included
3. Number of participating libraries
4. Span of publication dates

8. What method of delivery of Interlibrary Loan materials would you suggest?

- | | |
|----|----------------------|
| 31 | Van delivery |
| 20 | Mail |
| 4 | UPS |
| 6 | Other |
| 1 | No use of ILL system |
| 6 | No response |

Suggestions to improve interlibrary loan system:

- a. First class mail at patron expense for rush items.
- b. Direct loan instead of through the State Library.
- c. Patron pickup from lending library.
- d. Regional drop-off centers.
- e. Supplement by telefacsimile delivery of magazine articles.
- f. Expand van delivery: Daily or three times a week; include Dartmouth.

9. How many ILL requests did your library make last year?

Consult tables at conclusion of report.

10. How many requests did your library fill last year?

Consult tables at conclusion of report.

11. Interlibrary Loan Borrowing: Do you borrow items through a regional union list, such as the Hillstown Union List?

12 Yes 55 No

Regional union lists identified:

- a. Hillstown Cooperative
- b. Hillstown Union List of Fiction
- c. Merri-Hill-Rock
- d. Northern Carroll County
- e. Nubanusit Union Catalog
- f. Plymouth-Thornton Cooperative
- g. Seacoast Cooperative

Additional ILL systems identified:

NH College & University Council
NH Union List of Serials
Urban Libraries Fiction Consortium

12. Interlibrary Loan Borrowing:

Libraries were asked to identify
three libraries used most actively
for each function.

13. Interlibrary Loan Lending:

This question identified the State Library and the University System libraries as the largest suppliers of ILL requests. Larger public libraries borrowed from each other or from academic libraries and lent materials to smaller libraries within their geographic area. Academic libraries used the collections of other academic libraries in the state through the NH College & University Consortium van delivery service. Special libraries dealt with their local public library, out-of-state sources, or other special libraries.

14. Library type: public, school, voc-tech, academic or special.

15. Size by number of volumes.

The responses to these questions were used to tabulate replies by library type.

16. Book budget for last fiscal year.

Valid interpretation of this data was not possible due to the number of incomplete responses and the diversity of budget years and figures.

17. Inventory of microform equipment.

Microform readers and printers are in heavy use at large academic and public libraries. Mid-size libraries average less than 50% use of equipment while smaller public libraries do not own equipment for microform use. The machines are accessible to library patrons and staff members.

Consult tables at conclusion of report for statistics.

18. Inventory of automated equipment:

Survey identified Fiske Free Library as the only library using a computerized circulation system which is housed in the city computer. The majority of libraries who are considering the purchase of automated equipment wished to acquire computer terminals and word processors.

Consult tables at conclusion of report.

19. Use of "Subject Guide to Books in Print":

a. Do you use this to select titles for purchase?

30 Yes 36 No 2 No Response

b. Do you use this to locate titles for ILL?

50 Yes 19 No 1 No Response

20. Bibliographic tools: Libraries indicated what sources were used to locate or verify bibliographic request.

Libraries most frequently used their card catalog to locate or verify these requests. "Books in Print," "Forthcoming Books in Print," and the "Cumulative Book Index" were the three most used sources. Other sources were not widely available throughout the state. Book review sources, such as the "Public Library Catalog" and "Book Review Digest," were used for ILL verification.

COMPARATIVE LIBRARY DATA

	<u>ILL Requests</u>	<u>ILL Loans</u>	<u>Microform Equipment</u>	<u>Automated Equipment</u>
<u>Public Libraries</u>				
<u>Less than 10,000 vols.</u>				
Alexandria: Haynes Memorial	5	0		
Alton: Gilman Public	64	0		
Bradford: Brown Memorial	39	0		
Chester Public	14	5		
New Castle Public	21	0		
<u>Public Libraries 10-20,00 vols.</u>				
Atkinson: Kimball Public	73	14		
Barrington Public	123	0		
Conway Public	324	36	2	
Gilford Public	350	10		
Henniker: Tucker Free	0	0		
Lancaster: Weeks Memorial	N/A	N/A		
Lyme Town Library	N/A	40		
Monroe Public Library	90	1		
Northwood: Chesley Memorial	4	0		
Plymouth Public	300	25		
Temple: Mansfield Public	N/A	N/A		
Weare: Paige Memorial	100	1		
<u>Public Libraries 20-50,000 vols.</u>				
*Bedford Public	284	478	1	Memory Typwrtr Brodart Bk Exp
*Claremont: Fiske Free	429	477	1	Memory Typwrtr Circulation Sys
*Exeter Public	260 (est.)	260 (est.)	2	
*Franklin Public	282	142	1	
*Hanover: Howe Library	852	376	1	Memory Typwrtr
Hudson: Hills Memorial	375	79	2	Memory Typwrtr
*Littleton Public	634	273	4	
*Milford: Wadleigh Memorial	335	772	1	
*New London: Tracy Memorial	318	71	0	
*Newport: Richards Free	246	171	1	Memory Typwrtr
*Peterborough Town Library	254	250	1	Memory Typwrtr Microcomputer
*Wolfeboro Public	361	57	0	
<u>Public Libraries 50-100,000 vols.</u>				
*Dover Public	187	509	3	Memory Typwrtr
*Keene Public	235	898	5	
*Laconia Public	588	802	2	
*Portsmouth Public	611	518	3	
*Rochester Public	506	225	1	
*Salem: Kelley Library	638	107	3	

COMPARATIVE LIBRARY DATA

	<u>ILL Requests</u>	<u>ILL Loans</u>	<u>Microform Equipment</u>	<u>Automated Equipment</u>
<u>Public Libraries over 100,000 vols.</u>				
*Concord Public	341	429	3	Memory Typwrtr
*Concord: NH State Library	12,660	25,009	5	Computer Termnl
*Manchester City	766	801	9	
*Nashua Public	901	1,457	5	Memory Typwrtr Computer Termnl
<u>Academic Libraries (NELINET members)</u>				
Durham:				
*Univ. of New Hampshire	1,799	4,951	39	Computer Termnl BETAB, OCLC, Word Processor, Memory Typwrtr
Henniker:				
*New England College	455	609	6	OCLC
Manchester:				
*Merrimack Valley College	170	44	9	Computer Termnl
*St. Anselm College	1,256	2,211	7	Word Processor, OCLC
Plymouth:				
*Plymouth State College	1,609	2,061	20	OCLC, Computer Termnl
<u>Academic Libraries</u>				
Chester: White Pines	4	4	1	
Manchester:				
*New Hampshire College	749	806	16	
Nashua:				
*Daniel Webster College	251	82	3	Computer Termnl Word Processor
*Rivier College	317	294	2	
New London:				
*Colby-Sawyer College	428	234	9	
Rindge:				
*Franklin Pierce	483	180	3	Computer Termnl Word Processor Memory Typwrtr

COMPARATIVE LIBRARY DATA

	<u>ILL Requests</u>	<u>ILL Loans</u>	<u>Microform Equipment</u>	<u>Automated Equipment</u>
<u>NH Technical College Libraries</u>				
*Concord: NH Technical Inst.	211	283	7	
Laconia: Vocational Tech. Coll.	15	25	1	
Nashua: Vocational Tech. Coll.	20	10	4	
<u>School Libraries</u>				
Colebrook Academy	25	100	1	
*Concord: St. Paul's School	200	60	4	
Exeter Area High School	N/A	N/A	3	
*Exeter: Phillips Exeter	378	456	13	Memory Typwrtr
Keene Senior High School	12	12	7	
Nashua Senior High School	N/A	N/A	12	Computer Termnl
Raymond High School	0	4	4	Microcomputer
<u>Special Libraries</u>				
Concord: NH Historical Society	0	5	3	
*NHSL Law Division	0	0	1	
Keene: Cheshire Hospital	253	509		
*Laconia State School	157	27		
Merrimack: Digital Equipment	114	43	3	Word Processor
				Computer Termnl
Nashua: Ingersoll-Rand	24	23	2	
Sanders Associates	35	15	4	Computer Termnl

*Member current union list

Microform equipment is the total number of units owned by the library.

Automated equipment is either available to the library either via town/college center or owned by the library.

BETAB -- automated acquisition system.

OCLC -- members of this network utilize a bibliographic data base for cataloging related services.

WEA RESEARCH SUMMARY

Warner Eddison Associates, Inc. identified automated state-wide union catalogs as those based on machine readable records. From their inquiries, the Task Force learned that:

- 15 States have automated union catalogs
- 5 States have card union catalogs
- 14 States are planning for automation
- 16 States have no plans to automate at this time.

TRENDS

- Computer-output-microfilm (COM) is the predominant format.
- No statewide, online union catalog was operational at the time of the survey.
- Union list membership is predominately academic, public and school or special libraries.
- 25 of 29 states use the MARC format as a standard.
- 17 states use OCLC records as part of the file. Two states used optical character recognition (OCR) to input data. Other states merged machine readable records from OCLC and other sources in the state.
- The majority of states issue COM catalogs with author, title and subject access.
- Cost figures, when available, were not comparative.
- LSCA funds were used to create most catalogs. Local funds continued the project in certain states. No private funds were used by any state.
- Three months to five years of planning preceeded the project.

PROBLEMS

- Computer errors and duplicate records result from lack of authority control.
- Quality control problems and cost increases due to incomplete, non-standard and non-MARC records.
- Cost increases resulting from vendor under estimates - both low bids and inadequate storage for circulation files.
- Withdrawal of records from the file.

INTRODUCTION

Warner-Eddison Associates Inc. (WEA) was asked by the New Hampshire Library Association (NHLA) to investigate what is going on in the 49 states other than New Hampshire in terms of statewide union catalogs. Do they exist? Are they on cards? on film? on microfiche? on magnetic media? and how have these states achieved their union catalogs?

A careful check of Library Literature for 1981, 1980, and 1979 revealed a good deal of material on the automation of individual libraries, particularly large public libraries and university or college libraries, but very little if anything about union catalogs for entire states, whether manually maintained or automated. We did not know if this meant a lack of activity in the area or just not enough time to publish. Therefore, WEA decided to go directly to the states to see what information could be gathered.

A set of questions was developed as was a list of the several state library agencies. Forty-eight states, including Alaska, were telephoned, many several times. Information for the entry on Hawaii was taken from a published report. The telephone interviews were both brief and extensive, depending on the person available to answer our questions and on the program within the state being discussed.

It is exciting to have put together this roster of states with basic information about the existence of or plans for union catalogs in each state. We hope the information will be useful to New Hampshire. Articles and reports were ordered and retrieved and accompany this report or have been delivered. The bibliography, part of the report, lists a number of useful discussions.

STATEWIDE UNION CATALOG SURVEY RESULTS

	HAS AUTOMATED UNION	HAS CARD UNION 1	PLANS FOR AUTOMATED 2	NO PLANS 3
1	ALABAMA	• GEORGIA	• CONN	ALASKA
2	ARIZONA	• NEW HAMPSHIRE	• DELAWARE	IDAHO
3	ARKANSAS	• NORTH CAROLINA	• IOWA	ILLINOIS
4	CALIFORNIA	• NORTH DAKOTA	• LOUISIANA	INDIANA
5	COLORADO	• VERMONT	• MASS	KENTUCKY
6	FLORIDA		• MICHIGAN	MAINE
7	HAWAII		• MISSOURI	MINNESOTA
8	KANSAS		• NEW JERSEY	MONTANA
9	MARYLAND		• NEW YORK	NEW MEXICO
10	MISSISSIPPI		• PENNSYLVANIA	OHIO
11	NEBRASKA		• RHODE ISLAND	OKLAHOMA
12	NEVADA		• SOUTH CAROLINA	OREGON
13	VIRGINIA		• UTAH	SOUTH DAKOTA
14	W. VIRGINIA		• WISCONSIN	TENNESSEE
15	WYOMING			TEXAS
16				WASHINGTON
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				

STATES WITH STATEWIDE UNION CATALOG				
	HAS AUTOMATED UNION	FORMAT 1	FORMAT OF CATALOG 2	PARTICIPANTS 3
1	ALABAMA	M	COM	Pub. Aca. Spec.
2	ARIZONA		COM	Pub. Aca. Spec.
3	ARKANSAS	M	COM	Pub. Aca. Spec. School
4	CALIFORNIA	M	COM	Public
5	COLORADO	M	COM	Pub. Aca. Spec. School
6	FLORIDA	M	COM	Pub. Aca.
7	HAWAII	M	COM	
8	KANSAS	M	COM	Pub. Aca.
9	MARYLAND		COM	Pub. Aca. Spec. School
10	MISSISSIPPI	M	COM	Public
11	NEBRASKA	M	COM	Pub. Aca. Spec.
12	NEVADA	M	COM	Pub. Aca. School
13	VIRGINIA	M	COM	Pub. Aca. Spec.
14	W. VIRGINIA	M	COM	Pub. Aca. Spec.
15	WYOMING	M		Pub. Aca. Spec.
16				
17				
18				
19				
20				
21				
22				
23		M = MARC	COM = Computer output microform	Pub = Public Aca = Academic Spec = Special
24				
25				
26				
27				
28				
29				
30				
31				

STATES WITH PLANS TO HAVE AUTOMATED STATEWIDE UNION CATALOGS

		Planned Format + Format of Catalog	Planned Participants	Status of Plans + Notes ₃
1	CONNECTICUT	M COM	Pub Aca Spec	Plan ready
2	DELAWARE	M COM	Pub Aca Spec School	Plan ready
3	IOWA	M not decided	Pub Aca Spec School	Still planning
4	LOUISIANA	M COM	Pub Aca Spec	OCLC only
5	MASSACHUSETTS	M COM + online	Pub Aca Spec	2 regional systems
6	MICHIGAN	M COM	Pub Aca Spec	Regionals starting
7	MISSOURI	M Online	Pub Aca Spec	OCLC
8	NEW JERSEY	M COM	Pub Aca Spec	OCLC/WLN
9	NEW YORK	M Not decided	Pub Aca Spec School	2 Plans- not ready
10	PENNSYLVANIA	M	Pub Aca Spec School	2 Regions-state serials
11	RHODE ISLAND		Pub School	Not ready
12	SOUTH CAROLINA	M		Planning - OCLC
13	UTAH			Planning - OCLC
14	WISCONSIN	M COM + Online	Pub Aca Spec School	Starting
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				

STATES WITH NO PLANS FOR AUTOMATED STATEWIDE UNION CATALOGS

		HAS UNION LIST OF SERIALS 1	Has automated circula- tion for state+region 2	NOTES 3
1	ALASKA			PNBC
2	IDAHO			Most belong to WLN
3	ILLINOIS		Statewide Circ.	
4	INDIANA	Serials statewide		
5	KENTUCKY	Serials statewide		
6	MAINE	Serials statewide		
7	MINNESOTA	Serials statewide		Statewide ILL Network
8	MONTANA			WLN
9	NEW MEXICO			
10	OHIO		Planning regional circulations	
11	OKLAHOMA			USES OCLC
12	OREGON			PNBC
13	SOUTH DAKOTA			
14	TENNESSEE			OCLC/SOLINET
15	TEXAS		Regional circulation	
16	WASHINGTON			PNBC/WLN
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				
31				

ALABAMA

Anthony Miele
Alabama Public Library Service,
6030 Monticello Drive
Montgomery, AL
(205) 832-5743

- o Has statewide union catalog
- o Types of libraries participating: Public, Academic, Special
- o Machine readable (automated)
- o Format: MARC
- o Number of titles: 780,000
- o Contents of database: OCLC and retrospective, using OCR
- o Format of catalog: COM fiche
- o Implementation cost: \$60,000 ; per record: 5.5¢
- o Maintenance cost: \$13,000-\$15,000 per edition
- o Planning stages: 2 years
- o Has been operational 3 years
- o Sources of funding: LSCA I
- o Problems: Not sure of funding; vendor costs skyrocketed.
- o Comments: CLSI has won statewide contract in Alabama. Plans are to establish a state network of data bases for public, academic and school. Public Library service there is preparing a conversion database for local libraries to use in converting (ATIL, Nov. 1979)

ALASKA

Margaret Leibowitz
Alaska State Library
Pouch G
Juneau, AK 99811
(907) 465-2910

- o Does not have statewide union catalog. Belongs to Pacific Northwest Bibliographic Center.

ARIZONA

Joseph Scaccia
Arizona Department of Library Archives
3rd floor, Capitool Bldg.
Phoenix, AZ 85007
(602) 255-5841

- o Has statewide union catalog
- o Types of libraries participating: Public, Academic, Special
- o Machine readable (automated)
- o Format: LC# numerical
- o Number of titles: 629,089

ARIZONA cont.

- o Contents of database: uses OCLC tapes and coding sheets of LC numbers
- o Format of catalog: COM fiche
- o Implementation cost: \$25,000-\$30,000 ; per record: NA
- o Maintenance cost: \$10,000-\$12,000 per edition
- o Planning stages: 2 years
- o Has been operational 6 years
- o Sources of funding: LSCA I
- o Problems: Access is only by LC call number - there was a technical problem in justifying number on the left and right. Also, participating libraries are not adding information about their withdrawals regularly so union catalog is not up to date.
- o Comments: Planning to convert to MARC status

ARKANSAS

Cynthia Pitts
 1 Capitol Mall
 Little Rock, AR 72201
 (501) 371-2550

- o Has statewide union catalog
- o Types of libraries participating: Public, Academic, Special, School
- o Machine readable (automated)
- o Format: MARC
- o Contents of database: OCLC and current
- o Format of catalog: COM fiche
- o Implementation cost: NA ; per record: NA
- o Maintenance cost: \$30,000-\$35,000 per cumulative edition
- o Planning stages: 1 year
- o Has been operational 3 years
- o Sources of funding: LCSA III
- o Problems: Variations in profiles of various libraries

CALIFORNIA

Liz Gibson
 California State Library
 721 Capitol Mall
 Sacramento, CA 95814
 (914) 233-5941

- o Has statewide union catalog
- o Types of libraries participating: Public
- o Machine readable (automated)
- o Format: MARC
- o Contents of database: OCLC and current; RIG/RLIN tapes; vendor tapes.
- o Format of catalog: COM fiche
- o Implementation cost: \$500,000; per record: NA
- o Planning stages: 1 year
- o has been operational 2 years
- o Sources of funding: LSCA I; state
- o Problems: Understaffed department; noncompatability of data.
- o Vendor: Autographics
- o Comments: Mountain Valley Library System has an automation project involving circulation systems. This project is described in the LJ special report by Matthews listed in the bibliography.

COLORADO

Wendy Penrose
 Denver Public Library
 3840 York St.
 Denver, CO 80205
 (303) 575-3606

- o Has statewide union catalog
- o Types of libraries participating: Public, Academic, Special, School
- o Machine readable (automated)
- o Format: MARC
- o Number of titles: 850,000
- o Contents of database: OCLC tapes; tapes from local library computer systems; conversions
- o Format of catalog: COM fiche
- o Implementation cost: \$22,445 ; per title: 11¢
- o Maintenance cost: \$71,000 per cumulative edition (for update and production - \$47,460 for production alone)

(COLORADO continued)

- o Planning stages: 1 year
- o Has been operational 2 years
- o Sources of funding: LSCA I + LSCA III
- o Problems: Inconsistency of data supplied by libraries was not handled well by programming (technical problems). Continuation of funding has not been renewed.
- o Comments: Vendor is Autographics. CO is now doing feasibility study on converting to a network of online regional catalogs using existing computer facilities interfaced with a communication link. Funding has ceased for present CUC.

CONNECTICUT

Leslie Berman
 Director of Planning and Research
 Connecticut State Library
 State Office Building
 Hartford, CT 06115
 (203)

- o Does not have statewide union catalog
- o Plans to establish a state union catalog
- o Types of libraries that will participate: Public, Academic, Special
- o Machine readable (automated)
- o Format: MARC
- o Contents of database: OCLC and retrospective, using OCR; circulation tapes.
- o Format of catalog: COM fiche
- o Implementation cost (estimated): \$30,000 ; per 1 million title database if all holdings are in machine readable form.
- o Maintenance cost: \$70,000-\$100,000 per edition (depending on number of copies)
- o Planning stages: 1 year
- o Sources of funding: Recommended: state, academic and public libraries and library systems should budget for automation for next 5 years.
- o Comments: Full report by Epstein & Epstein is listed in the bibliography.

DELAWARE

Sylvia Short
 Delaware Dept. of Community Affairs
 Division of Libraries
 630 State College Road
 PO Box 639
 Dover, DE 19901
 (302) 736-4748

- o Does not have statewide union catalog
- o Plans to establish a statewide union catalog
- o Types of libraries that will participate: Public, Academic, Special, School
- o Machine readable (automated)
- o Format: MARC
- o Number of titles: 190,000
- o Contents of database: First stage: OCLC tapes; next stage: retrospective conversions of large libraries.
- o Format of catalog: COM fiche
- o Implementation cost (estimated): \$65,000 ; per record: 13¢
- o Maintenance cost: \$56,000
- o Planning stages: 4-5 years
- o Sources of funding: LSCA I; LSCA III

FLORIDA

Barrat Wilkins
 State Library of Florida
 R.A. Gray Bldg.
 Tallahassee, FL 32301
 (904) 487-2651

- o Has statewide union catalog
- o Types of libraries participating: Public, Academic
- o Machine readable (automated)
- o Format: MARC
- o Number of titles: 1,800,000
- o Contents of database: Records of major libraries were microfilmed and information put into database, distributed terminals to next largest libraries for matching. New members are joining Solinet.
- o Format of catalog: COM fiche
- o Implementation cost: \$1,200,000; per record: 67¢
- o Maintenance cost: \$25,000
- o Planning stages: 10 months
- o Has been operational 5 years

FLORIDA cont.

- o Sources of funding: LSCA I
- o Problems: Data base construction

GEORGIA

Lucy Patricks
Georgia Division of Library Services
156 Trinity Ave., SW
Atlanta, GA 30303
(404) 656-2461

- o Has statewide union catalog
- o Types of libraries participating: Public, Academic, Special
- o Not machine readable

IDAHO

Jane Houston
Idaho State Library
325 W. State Street
Boise, ID 83702
(208) 334-2150

- o Does not have statewide union catalog. Most major Idaho libraries belong to WLN.

ILLINOIS

Kathryn Gesterfield
State Librarian's Office
Centennial Bldg.
Springfield, IL 62736
(217) 782-5430

- o Does not have statewide union catalog. Has a statewide circulation system which uses CLSI and manual data entry.
- o Academic libraries have a circulation system developed at the Ohio State University Libraries.

INDIANA

Martha Roblee
 Indiana State Library
 140 N. Senate Ave.
 Indianapolis, IN 46204

- o Does not have statewide union catalog. Has a statewide union list of serials.

IOWA

Jane Gray
 Iowa State Library Commission
 Historial Bldg.
 Des Moines, IA 50319
 (515) 281-4400

- o Does not have statewide union catalog
- o Plans to establish statewide union catalog
- o Types of libraries that will participate: Public, Academic, Special, School
- o Machine readable (automated)
- o Format: MARC
- o Contents of database: Will start with libraries on OCLC only.
- o Format of catalog: Not yet determined.
- o Cost information not available - still in planning stages.
- o Planning stages: 2 years

KANSAS

Vee Friesner, Director
 Library Development Division
 State Library of Kansas
 3rd floor, State Capitol
 Topeka, KA 66612
 (913) 296-3296

- o Has statewide union catalog
- o Types of libraries participating: Public, Academic
- o Machine readable (automated)
- o Format: MARC
- o No. of Titles: 800,000
- o Contents of database: OCLC and retrospective, using OCR
- o Format of catalog: COM fiche (Author-Title/Subject)

(KANSAS continued)

- o Implementation Cost: \$50,000; per record: \$0.24
- o Maintenance Cost: \$50,000 per edition
- o Planning stages: 2 years
- o Has been operational 5 years
- o Sources of funding: LSCA III; state. Local libraries bear cost of input and use various methods.
- o Problems: No method for withdrawals; faulty input and filing errors, Quality control a real problem - nonstandard formats.
- o Comments: In addition to producing a statewide fiche catalog. Kansas produces 2 regional catalogs in film, and 1 regional catalog on film/fiche, for ROM Film Reader.

KENTUCKY

Martha Gregory
Kentucky Department of Libraries
Box 537
Frankfort, KY 40602 (502) 564-7910

51

- o Does not have statewide union catalog, but has a union list of serials.
- o Does not plan to establish a statewide union catalog.

LOUISIANA

Michael McCann
Louisiana State Library
760 Riverside Mall
Box 131
Baton Rouge, Louisiana 70821 (504) 342-4922

- o Does not have statewide union catalog.
- o Plans to establish a statewide union catalog.
- o Types of Libraries that will participate: OCLC participating libraries, Public, Academic, Special
- o Machine readable (automated)
- o Format: MARC
- o Contents of Database: OCLC + Current
- o Format of catalog: COM Fiche
- o Implementation cost: estimated at \$180,000
- o Planning stages 3½ years.
- o Sources of funding: State
- o Problems: In process of obtaining funding - may not get money.

MAINE

Ben Keating
Maine State Library
State House Station 64
Augusta, ME 04333 (207) 289-3328

- o Does not have statewide union catalog, but a union catalog of serials which is produced from a machine readable file at the University of Maine. In addition Maine is divided into three References & Resource Areas/centers. Each library within

an area can approach the Center and the Center can then approach another Center etc., Maine has the largest ILL program in New England. Each Library receives a grant from the state legislature to pay for the area services, the ILL services, etc. Every library can telephone its Reference & Resource Area on a WATS line provided through the budget of that Center. These Centers are on OCLC and in case of need will use the 3rd - party borrowing capability of the OCLC ILL function.

- o Format of Catalog (union list of serials): Hard copy (book)
- o Problem: Feeling that the small libraries are receiving and big ones giving.
- o Comments: No immediate plans for retrospective conversion. Hopeful that over time enough libraries will be on OCLC or some automated system so that a statewide COM catalog or online catalog could happen. Foresee real funding problems.
- o Sources of funding: State

MARYLAND

Maurice Travillian
Division of Library Development
200 W. Baltimore St.
Baltimore, MD 21201 (301) 659-2127

- o Has statewide union catalog.
- o Types of libraries participating: Public, Academic, Special, School
- o Machine readable (automated)
- o Format: (Combination of all machine readable tapes)
- o Contents of Database: OCLC and OCR, RIG/RLIN tapes, circulation tapes, merged all library tapes, Vendor tapes.
- o Format of Catalog: COM Fiche.
- o Implementation cost: \$60,000; per record: not applicable, records were already machine readable.
- o Maintenance Cost: \$42,000 per edition
- o Planning stages: 3 months
- o Has been operational: 7 years
- o Sources of funding: LSCA III, State
- o Problems: No quality control - database is a merger of all types of machine readable tapes.

MICHIGAN

Mabel Grannis
Michigan State Library
P.O. Box 300001
Lansing, MI 48909

53

- o Does not have statewide union catalog yet, but has several regional catalogs just beginning.
- o Plans to establish a statewide union catalog, but plans are more "assumptions" than formal. Are beginning with a union list of serials. Regionals may later be linked for a statewide one.
- o Types of Libraries participating in regional: Public, Academic, Special. The union list of serials, is beginning with Academic, others are now inputting.
- o Machine readable (automated)
- o Format: MARC
- o Contents of Database: (for union list + regionals) OCLC, Current and retrospective
- o Format of Catalog : COM Fiche
- o Sources of funding: ALA grant to 3 largest universities to begin union list activities.

MASSACHUSETTS

David Reich
Massachusetts Board of Library Commissioners
648 Beacon St.
Boston, MA 02215

- o Does not have a statewide union catalog.
- o Does not plan to establish a statewide union catalog. Central and Western regions planning a regional union catalog. Recommendations for regions include a MARC format database and computer systems to support the following functions: an online catalog, circulation, ILL, AV bookings, services to the handicapped, information and referral cataloging and serials control. Report by RMG consultants is listed in the bibliography.

MINNESOTA

Mr. Al Lewis
Office of Public Libraries
480 Cedar Street
St. Paul, MN 55101 (612) 292-2821

- o Does not have statewide union catalog. Has a union list of serials only.
- o Does not plan to establish a statewide union catalog.
- o Has an ILL network connected with minicomputer terminals replacing the teletype system

MISSISSIPPI

Gerald Buchanan
Mississippi Library Commission
Jackson, MS 39207
(601) 354-6377

- o Has statewide union catalog.
- o Types of libraries participating: Public
- o Machine readable (automated)
- o Format: MARC
- o Number of titles: 184,000
- o Content of database: OCLC and retrospective; Vendor tapes.
- o Format of catalog: COM fiche
- o Implementation cost: NA
- o Maintenance cost: NA
- o Planning stages: 1 year
- o Has been operational 2 years
- o Sources of funding: LSCA I
- o Problems: OCLC; lack of local holdings data.

MISSOURI

Charles O'Halloran
Missouri State Library
PO Box 387
Jefferson, Missouri 65102
(314) 751-4214

- o Does not have statewide union catalog.
- o Thirty academic, special and public libraries have formed the Missouri Library network corporation to broker OCLC to any MO library and to develop an OCLC-based Missouri Library database using WLN software.
- o Funding: Each library put up \$1000 to begin.

MONTANA

Beth Givens
Montana State Library
930 E. Lyndale Ave.
Helena, MT 59601

- o Does not have statewide union catalog. Using WLN as a union catalog.
- o Does not plan to establish a separate statewide union catalog.

NEBRASKA

Mona Jean Easter
 Nebraska State Library
 4120 P Street
 Lincoln, NE 68508
 (402) 471-2045

- o Has statewide union catalog.
- o Types of libraries participating: Public, Academic, Special (OCLC participants only)
- o Machine readable (automated)
- o Format: MARC
- o Number of titles: 414,816. Entries include books, serials and nonprint media.
- o Contents of database: OCLC and retrospective, using OCR, plus the Community College COM catalog database. Retrospective conversion checked against Baker & Taylor MARC tapes.
- o Format of catalog: COM fiche (Author-Title/Subject)
- o Cost information not available.
- o Planning stages: 1 year
- o Has been operational: 3 years
- o Sources of funding: Nearly all contract costs funded with LSCA III
- o Comments: Union catalog only reports the holdings of the 56 largest libraries in the state. New members are only accepted if they are on OCLC. The original Community College COM catalog was produced by microfilming the shelf lists of the colleges and then converting that to machine readable form.

The catalog is produced 3 times a year, in two listings: integrated author-title, and subject. An individual catalog may be produced if the library will pay the production costs.

NEVADA

Joan Kirchner
 Nevada State Library
 Capitol Complex
 Carson City, NV 89710 (702) 885-5165

- o Has statewide union catalog.
- o Types of Libraries participating: Public, Academic, School
- o Machine readable (automated)
- o Format: MARC
- o Contents of database: BALLOTS/RLN, Current acquisitions through General Research Corp. (GRC) and Baker & Taylor tapes, circulation tapes, and OCR-input for retrospective.
- o Format of catalog: COM fiche planned
- o Implementation cost: Conversion: GRC is running LC numbers from all sources at a cost of \$800/month for whole state. Hits with Baker & Taylor tapes are 12¢ a record
- o Maintenance cost: not yet operative, so maintenance costs not yet known.
- o Sources of funding: LSCA III and pooled library budget contributions from participating libraries.
- o Problems: Logistics. Shortage of staff, particularly now with budget cuts, to work on everything. Cooperative Processing Center has been eliminated in current budget year so contributions to union catalog will be more difficult because neither the libraries nor the State Library has extra staff.
- o Comments: Nevada's strong and supportive network experience makes library programs work. One county uses a CLSI circulation system; they are going to convert their CLSI tapes to a COM catalog. Another county library system is going to introduce a circulation system using some of the union catalog machine readable information. There is a statewide union list of serials at the University of Nevada.
- o History: Nevada had a union card catalog from 1952 until about 1975 at which time they began an 18 month demonstration project using their Cooperative Processing Center and BALLOTS(RLN). This was an effort to achieve a machine readable union catalog. The cost in staff and dollars proved prohibitive for them so they did not continue.
 Instead, a Title Locator was set up (on the State computer) which had an LC card number, title, and location codes for all publications acquired by all public libraries and most schools and 5 community colleges, so that Nevada had that much of a union catalog from 1976 forward. The Title Locator was stopped on 6/30/81. This Title locator will be converted to a full record COM catalog.

Went out to bid to go back to full record and then to COM Fiche. General Research Group (GRC) won the bid and will provide a COM union catalog using: the tile locator index of LC card numbers to retrieve the full records from the Baker & Taylor tapes, plus the state document database at the University, plus CLSI circulation tapes from one county, etc. GRC has said to give them as much as possible in this first time around.

NOTE: Nevada is urging all participating libraries to weed intensively, to see if a book hasn't circulated in 10 years or so, etc. Some thought being given to having a state repository for last copy books which are no longer being held by participating libraries.

NEW JERSEY

Elizabeth Breedlove
State Library
Library Development Bureau
P.O. Box 1898
Trenton, NJ 08625
(609) 292-9623

- o Does not have a statewide union catalog
- o Planned to have a COM statewide union catalog but has had to cut back due to funding uncertainty. As an alternative approach they plan to use LSCA funds to fund OCLC implementation, and to produce 8 issues of a COM catalog of the holdings of NJ State Library and Newark Public Library.
- o Types of libraries that will participate: This catalog will be used for ILL for the public, academic and special libraries. Original catalog was to have entries from each of these.
- o Machine readable (automated)
- o Format: MARC
- o No. of Titles: In NJ State/Newark catalog 250,000
- o Sources of funding: LSCA III, State
- o Comments: The NJ Task Force has produced an excellent report and recommendations for automation in NJ with a draft state library policy. These materials have been sent to the New Hampshire Task Force members.

NEW MEXICO

Clifford Lange
New Mexico State Library
P.O. Box 1629
Santa Fe, New Mexico 87503
(505) 827-2033

- o Does not have statewide union catalog.
- o Does not plan to establish a statewide union catalog in the near future.

NEW YORK

Joseph Shubert
 New York State Library
 Empire State Plaza
 Albany, NY 12230
 (518) 474-5930

- o Does not have statewide union catalog.
- o Plans to establish a statewide union catalog.
- o Types of Libraries that will participate: Public, Academic, Special, School
- o Machine readable (automated)
- o Format: MARC
- o No. of Titles: There are an estimated 11,000,000 records with NY locations in four different databases.
- o Contents of Database: Current and retrospective OCLC, RIG/RLIN tapes; MCLIS/LIONS databases, state library; will build on existing machine readable data.
- o Format of catalog: Not decided.
- o Implementation cost: NA
- o Maintenance cost: NA
- o Sources of funding: LSCA; LSCA III
- o Comments: New York has two proposals
 1. Serials only, using CONSOR and holdings information from any system.
 2. A committee recommendation to pursue technical development. A discussion draft of this is circulating in New York.

NORTH CAROLINA

David Beran
 North Carolina State Library
 109 East James St.
 Raleigh, NC (919) 733-3688

- o Has a statewide union card catalog.
- o Types of Libraries participating: Public, Academic, Special, School

NORTH DAKOTA

Richard Solfert
 North Dakota State Library
 Bismark, ND 58505
 (701) 224-2490

- o Has statewide union catalog.
- o Types of Libraries participating: Public (larger-over 20,000), Academic
- o Not machine readable but will be eventually when all participants are in OCLC.

OHIO

Vera Simpson
 State Library of Ohio
 65 S. Front Street
 Columbus, OH 43215
 (614) 462-7061

- o Does not have statewide union catalog.
- o Does not plan to establish a statewide union catalog. Uses OCLC as a union catalog. Has a regional circulation system in planning. Contact consultant Tony Yankus at (614) 462-6920

OKLAHOMA

Robert Clark
 Department of Libraries
 200 N.E. 18 St.
 Oklahoma City, OK 73105 (405) 521-2502

- o Does not have a statewide union catalog.
- o Does not plan to establish a statewide union catalog. Uses OCLC online as a union catalog. 23 libraries use OCLC, 4 have complete retrospective conversion.

OREGON

Kay Grasing, Deputy State Librarian
 Oregon State Library
 Salem, OR 97310

- o Does not have statewide union catalog.
- o Does not plan to establish a statewide union catalog. Belongs to the Pacific Northwest Bibliographic Center.

PENNSYLVANIA

Elliot Shelkrote
 Pennsylvania State Library
 Harrisburg, PA 17120 (717) 787-2646

- o Has two (for east and west) regional union catalogs being developed. Also has union list of serials for state.
- o Types of Libraries participating: Public, Academic, Special, School
- o Machine readable (automated)
- o Format: MARC
- o Contents of Database: Current since 1974, OCLC + retrospective back to 1968. They been feeding into OCLC 8 years. For the union lists, all data entry of holdings is done at the state library.
- o Sources of funding: LSCA

RHODE ISLAND

- o Does not have statewide union catalog. Has an ILL network via teletype which is currently felt to be satisfactory
- o Plans to establish a statewide union catalog at some point. Had a central processing center: now inactive. Public and school libraries especially interested in reviving as an automated center.
- o Number of Titles: Could have 3,000,000 records.
- o Comments: Full text of the Neline Rhode Island Automation report is available to the panel. Listed in the bibliography.

SOUTH CAROLINA

Betty Callahan
South Carolina State Library
1500 Senate St. Box 11467
Columbia, SC 29211 (803) 758-3181

61

- o Does not have statewide union catalog.
- o Plans to establish a statewide union catalog. Are in process of conducting a feasibility study.
- o Format: MARC
- o Contents of Database: Plans to use OCLC

SOUTH DAKOTA

Herschel Anderson
South Dakota State Library
State Library Bldg.
Pierre, S. Dakota 57501 (605) 773-3131

- o Does not have statewide union catalog.
- o Does not plan to establish a statewide union catalog.

TENNESSEE

Mrs. Young
Tennessee State Library & Archives
Nashville, TN 37219 (615) 741-2764

- o Does not have statewide union catalog.
- o Does not plan to establish a statewide union catalog. Will use OCLC through SOLINET ONLY

TEXAS

Mr. Walton, Automation Consultant
Texas State Library
Box 12927 Capitol Station,
Austin, TX 78711 (512) 475-2166

- o Does not have a statewide union catalog. They are on AMIGOS.
- o Does not plan to establish a statewide union catalog, but there are regional union catalogs. Largest is:

Houston area: (HALS). Contact: Suzanne Marshall (713) 224-5441
Houston Public Library
500 McKinney Street
Houston, TX 77002

Automated circulation system, public libraries only. Used OCLC and other tapes. Has 55 terminals.

- o Funding: State and City

UTAH

Russell L. Davis
Utah State Library
2150 S. 300 West
Salt Lake City, Utah 84115 (801) 533-5875

- o Does not have statewide union catalog.
- o Plans to establish a statewide union catalog, trying to build on OCLC but have no specific plans or funding at this point.

VERMONT

Patricia Klinck
Vermont Department of Libraries
111 State St.
Montpelier, Vermont 05602 (802) 828-3261

- o Has a statewide union card catalog.
- o Does not plan to establish an automated union catalog at this point through all OCLC participants will be automated.
- o Types of Libraries participating: Public, Academic, Special, School
- o Not machine readable
- o Format is as received from library
- o Costs: last feasibility study said \$500,000 to automate
- o Problems: Manual catalog is very time-consuming to file.

VIRGINIA

Barbara Thiele
Virginia State Library
Richmond, VA 23219 (804) 786-2321

- o Has statewide union catalog.
- o Types of Libraries participating: Public, Academic, Special
- o Machine readable (automated)
- o Format: MARC
- o No. of Titles: 1,042,802 titles(6/81)
- o Contents of Database: Began with OCLC tapes. OCLC + retrospective, using vendor tapes such as Blackwell North America. Now twenty-five libraries are doing online conversions. Small libraries are using the computer company terminals checking the LC-MARC database.
- o Format of Catalog: COM Fiche. Do not charge libraries for fiche

- o Implementation Cost: NA
- o Maintenance Cost: \$240 per Complete set of fiche, (.033 per record, .0039 per frame, and .79 per fiche) for copies.
- o Planning stages: 6 months
- o Has been operational: 2 years
- o Sources of funding: LSCA I, LSCA III, State
- o Problems: Personal name filing problems, other filing software (ignoring leading articles, etc.) Garbled records in the database which had to be verified manually. For retrospective conversions, phone line and programming problems.
- o Comments: High COM costs are forcing a second look at different COM options and at an online catalog system.

WASHINGTON

Constance Smith
Reference Librarian
Washington State Library
Olympia, Washington 98504
(206) 753-5592

- o Does not have statewide union catalog.
- o Does not plan to establish a statewide union catalog. Participates in the Pacific Northwest Bibliographic Center and WLN.

WEST VIRGINIA

Frederic Glazer
West Virginia Library Commission
Charleston, WV (304) 348-2041

- o Has statewide union catalog.
- o Types of Libraries participating: Public, Academic, Special
- o Machine readable (automated)
- o Format: MARC
- o No. of Titles: Over 600,000
- o Contents of Database: OCLC + retrospective, using Minimax + microfilmed cards
- o Format of Catalog: COM fiche, plus microfiche of pre-1976
- o Maintenance Cost: about \$40,000 per year
- o Planning stages: 1 year

(WEST VIRGINIA continued)

- o Has been operational since late 60's
- o Sources of funding: LSCA III

Comments: All participating libraries had cards of pre-1976 holdings microfilmed. This list is currently augmented with OCLC tapes or by submission of LC numbers. The original microfiche and the COM updates are not merged but the COM updates are cumulated. This system offers a useful handbook (available to Task Force members) for its participants.

- o Vendor: Autographics. University Microfilms for back filming.
- o Problems: Very labor intensive.

WISCONSIN

Sally Drew
Division of Library Services
State Library
Madison, WI 53702
(608) 266-7270

- o Does not have statewide union catalog.
- o Plans to establish a statewide union catalog.
- o Types of Libraries participating: Public, Academic, Special, School
- o Machine readable (automated)
- o Format: MARC
- o Contents of Database: (Planned); OCLC + retrospective, Circulation tapes and merge all machine-readable tapes in MARC format.
- o Format of Catalog: COM fiche; online - would not be used for several years.
- o Implementation cost: Selection of COM vendor (\$4,000-8,000). Database generation \$25,000 for a million titles (estimates)
- o Maintenance cost: \$330 per set of fiche "once the statewide database has been established" (estimate from study for a million title catalog with updates costing \$90,000 a year additionally.)
- o Five Year timetable given in report.
- o Sources of funding recommended in report: State, Academic, Public and Local set-aside in budgets
- o Comments: Report by Epstein and Epstein with detailed cost estimates, listed in the bibliography.

WYOMING

Mary Sue Stuper
 Wyoming State Library
 Supreme Court
 Cheyenne, Wyoming 82002
 (307) 777-7281

- o Has statewide union catalog.
- o Types of libraries participating: Public, Academic, Special
- o Machine readable (automated)
- o Format: MARC
- o Contents of Database: Current + retrospective.
- o Format of Catalog: will be both Online or COM fiche
- o Implementation cost: Imbedded in circulation systems costs
- o Maintenance cost: Not available
- o Planning stages: 3 years.
- o Sources of funding: State
- o Problems: Problems of inaccurate LC numbers are anticipated.
- o Comments: vendor: Cincinnati Electronics and Libraries are automating by stages, with the goal to be one database for the State library, the University's libraries, the community college libraries and all county library systems.

PROBLEMS AND CONCERNS RELATED TO AUTOMATED UNION CATALOGS

Merging library records from a widely disparate group of libraries which have never cooperated before (and which have possibly not been using the same set of standards) can produce a number of problems. Libraries approaching computer companies with their needs can be a source of problems because librarians, skilled in their profession, are frequently untutored in the world of data processing and computer professionals, skilled in their profession, have no knowledge or understanding of the special and particular needs of libraries. Concern about the unknown computer can be a matter of concern to some of a library's user group.

Problems and concerns related by those interviewed in the Telephone Survey appear to fall into four categories: Policy questions; Quality controls; Format questions; and Vendor/Utility problems. Each of these is discussed here.

POLICY QUESTIONS

Staffing: Sometimes the need for staff assigned to the automation project on an ongoing basis was not clearly established. Sometimes the skills appropriate to those positions were not clearly defined. Sometimes staff has been assigned in the beginning, but then, once the process was begun, staff was withdrawn with resulting breakdowns in the efficacy of the process.

Funding: Funding needs are everywhere. Changes in funding often result in the staff needs mentioned above. Occasionally funds were available for the planning phase but none were there for the implementation of the plan. Sometimes funds were cut, or not renewed. An automated union catalog requires long range staffing and funding.

Inter-library relations: Big libraries, the ones most apt to be able to automate or to participate in an automation program, sometimes feel that they are doing all of the work and that small libraries are able to benefit without having to share in the work or the financial support.

QUALITY CONTROLS

Authority controls: Lack of use of name authority lists for example makes for difficulties in a union catalog.

Data entry: Sometimes participating libraries enter records into the database without adequate controls for the data entry process so that "dirty data" is added to the database.

Nonstandard cataloging: Incomplete or nonstandard records are sometimes found in one or more catalogs of participating libraries. If all machine readable tapes are merged, then nonstandard cataloging becomes part of the database and makes retrieval difficult.

Withdrawals: Sometimes provision for database maintenance is not thoroughly planned including overlooking the need for participating libraries to be able to withdraw items from the database to reflect the fact that the items have been withdrawn from the collection.

FORMAT

Database construction: Although most states have decided to use the MARC format, frequently what went into the database turned out not to be standard MARC but hybrid something. This made for incompatibility of data in the database. Lack of consistency in the format of records in the database can result in duplicate or multiple entries being made for the same publication, but the computer may not recognize the duplication because the format is so different.

LC Card Numbers: Sometimes LC card numbers are used as the way to pull up records from the MARC tapes or from other machine-readable files. This can be a problem because there are errors in the LC card numbers, i.e., an LC card number can be used and it will retrieve a bibliographic record, but it will be for a different book than the one intended.

Access: Sometimes a state relied heavily on OCLC records in order to build the union database, but this meant that local holding information was missing frequently and the cost of adding that information later seemed high. Sometimes access is only by LC classification number which can be limiting.

VENDOR/UTILITY QUESTION:

Many times libraries and vendors or utilities have begun on projects without sufficient attention having been given to planning, to forecasting the future, to anticipating problems. Sometimes vendor staff has not been trained appropriately so that library staff have found it uncomfortable working with the vendor representatives. Sometimes vendors have not looked far enough ahead in terms of cost estimates so libraries are surprised by suddenly escalating costs. Software problems such as not filing in correct library procedure, not dropping leading articles, etc., have been encountered. Hardware and telecommunication problems have also been evident.

COST SAVING MEASURES EVIDENT
FROM SURVEY DATA

A. NEW DATABASE

1. Plan
2. Establish standard format (e.g. LC/MARC) and insist that participants use it.
3. Begin with ongoing data (Do not convert retrospectively all at once)
4. Use machine-readable data which is already MARC-compatible whenever possible.

B. CONVERSIONS (If you decide to convert)

1. Plan
2. Convert for a known system and purpose, not at random.
3. Have weeding projects completed before conversion
4. Use already existing databases (such as at nearby university) to avoid data entry and to improve quality control.
5. Use vendors offering LC/MARC data to consolidate duplicates and get the cleanest data.
6. Do gradually as need arises.
7. Each local library or region can be responsible for own conversion costs.
8. Use of volunteers to add location codes.
9. Use LC numbers as keys for matching records.

C. SYSTEM

1. COM:

- (a) Reduce number of catalogs printed
- (b) Reduce frequency of full updates and/or supplements
- (c) Charge non-system libraries for copies; perhaps charge system libraries part of the cost on a pro-rated basis; no charge for major contributors.

2. ONLINE :

Economies of scale for larger systems and purchases of hardware at one time (see Massachusetts figures)

ADVANTAGES/DISADVANTAGES

	CARD	COM	ONLINE
USERS	Local patron access not possible in central location	Local patron access possible. User resistance to microform, even among librarians.	Local patron access possible, but must have "user friendly" system to be really effective. User resistance found with older patrons.
CENTRALIZATION	Centralized system	Decentralized	Decentralized
MULTIPLE COPIES	Difficult	Easy	Depends on availability of terminals for local libraries.
UPDATES	Can be updated (filed) daily if enough staff. Lag time for card production/filing backlog. Withdrawals easy unless catalog has multiple access points.	Updates appear only with new editions or supplements, at very best bimonthly. Withdrawals easy to accomplish.	Can be updated daily & instantly to all locations as records are added or (on non-OCILC systems) deleted (withdrawn).
ILL SPEED	Slow with centralized catalog. Turnaround time depends on central staff's availability for searching.	Faster with library locations given so that libraries can go directly. Staff time same at local library, but less at central library.	Fastest, if computer system includes communication system between libraries. Should save some local and some central ILL staff time.

67

ADVANTAGES/DISADVANTAGES
(continued)

SUBJECT SEARCHING	Possible, but not available in most union catalogs. Normally, filing is by main entry or by title	Available if records used have full format. Can print bibliography from subject pages with a reader-printer	Available, if records are in full MARC format, for some systems other than OCLC. Systems with Boolean logic subject searching offer combined subject searching with decreased search time. Can produce detailed bibliographies.
STANDARDIZATION	Most desirable, but difficult with various contributors. Main entry choice and form may vary; not all libraries can achieve MARC standards.	Necessary. Most possible by matching titles with MARC format database.	Necessary. Most possible by matching titles with MARC format database.
SUBJECT AUTHORITY CONTROL	Subject uniformity not an issue (in a main entry catalog).	Subject uniformity a serious issue.	Subject uniformity a serious issue.

COST FACTORS

	CARD	COM	ONLINE
Equipment needed	Card cabinets	Microform readers (approx. \$200@) &/or reader printer (approx. \$2,000@) & fiche storage cabinets or boxes	Terminals; Computer or Minicomputers; Modems/telephone
Equipment maintenance	Minimal	Some needed	Regular maintenance under contract needed
Supplies	Card stock Filing supplies	Bulbs; paper & chemicals for printer	Paper for printing terminals; disks/tapes.
Space needed	Much floor space for large card cabinets	Minimal storage space for microfiche Reader (needs 3' table).	Terminals need table space - can use 3' table. Computer needs floor space, varies with size of computer.
ILL staff needs	Central location staff for searching & sending out results.	Local library staff to search & complete ILL forms. Patron assistance with microform.	Local library staff to search database. Patron assistance with terminals & system.
Postage	ILL request forms & cards sent to Central catalog	ILL request forms & microfiche sent to libraries	Not a factor
Telecommunication	Telephone calls, TWX, etc., to communicate with Central catalog staff	Telephone calls, TWX, etc., to communicate with other libraries	Telephone charges for all online activity to remote computer

COST FACTORS

	CARD	COM	ONLINE
START UP			
COSTS INCLUDE:	Already extant. Clean up filing backlog	Staff time for location coding, entry or preparation of OCR forms. Machine time for matching records, data entry, sorting files Production of initial catalogs. Purchase of equipment if libraries do not have.	High initial equipment and software costs depending on whether computers or just terminals need to be purchased. Staff training
MAINTENANCE			
COSTS INCLUDE:	Purchase of more cabinets as catalog grows Staff time for checking catalog, typing cards, copying cards, adding locations, filing.	Charges for Data Storage Staff as above for keeping database current. Production runs of new fiche for each update. Each new edition cost remaining high for master microfiche. Copy costs are relatively low.	Maintenance costs for equipment and for software. Telecommunications charges.

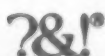
DISPOSITION OF UNION CARD CATALOGS

STATE	HAD ONE ?	STILL USING ?	CONVERTED TO MR ?	COMMENTS
COLORADO	Yes (Regional for 7 states): 1935-1976	Yes: only pre-1976. Service costs very high. 4/5 of Titles unique.	No. No plans for conversion.	Study proved it valuable for pre-1973. 90% of locations in sample still valid.
KANSAS*	No but each system had one	All kept. Some use. Regions very independent.	Many systems used for retrospective conversion	Retro-con projects produced dirty data and quality control problems.
NEBRASKA	Yes: 1938-1975	Yes: still filing cards which do not match any bibliographic databases.	NO: "Cost factors currently prohibit plans to convert UC to machine readable form."	Any requested ILL item is checked and added when possible to get the most useful items into the COM cataloging.
NEVADA	Yes: 1952-1975	Yes but are not filing into it. Use for retrospective titles not in the Title Locator	Hope to convert. It "sometime" in the future.	Future plans depend on fund availability.
VIRGINIA	No			
W. VIRGINIA	Yes: 1969-1976	No: closed in 1976 as cards, but are using microfiche for pre-1976 imprints.	No. Converted to microfiche form in 1976 by microfilming cards, but not to machine-readable form.	Microfiche is updated by COMfiche catalog but the two are not merged.

* The Kansas contact recommended Nebraska's system.

STATEWIDE UNION CATALOGS:
A CURRENT BIBLIOGRAPHY - 1981

- Association of Research Libraries. Systems and Procedures Exchange Center Retrospective Conversion. The Center, 1980.
- Bahr, Alice Harrison. Automated Library Circulation Systems, 1979-80. Knowledge Industry Publications, 1979.
- "Bargain Retro Cataloging via REMARC Planned by U CAL." LJ Hotline, October 5, 1981, p.3.
- Basinski, William L. and Fae K. Hamilton. An Automation Study for the Rhode Island Interrelated Library Network (RIILN). NELINET. 1981
- Bausser, Jaye. "Online Catalogs." RTSD Newsletter Sept/Oct. 1981, p.55-57.
- Bernstein, Judith, ed. Turnkey Automated Circulation Systems: Aids to Libraries in the Marketplace. American Library Association, 1980
- Boss, Richard W. "Circulation Systems: The Options." Library Technology Reports January/February, 1979
- Boss, Richard W. and D.H. Marcum. "Library Catalog: COM and On-line Options". Library Technology Reports, Sept./Oct. 1980.
- Breedlove, Elizabeth Ann. "The Impact of COM Statewide Union Catalogs on Resource Sharing." Catholic Library World, February 1981.
- "COM--Key to Rapid 'Resource Sharing' Growth." Auto-Graphics Update. June 1979.
- "A Comparison of OCLC, RLG/RLIN, and WLN". Prepared by Subcommittee on Bibliographic Utilities, Cataloging Objectives Committee, University of Oregon Library. Journal of Library Automation, September, 1981, pp. 215-230.
- The Computer Company. Integrated Library Network System for the Commonwealth of Virginia. Richmond, Virginia, 1978.
- Status Report: Virginia Bibliographic Data Base. Richmond, Virginia, November, 1979
- Corbin, John. Developing Computer-Based Library Systems. Oryx Press, 1981.
- DeGennaro, Richard. "Resource Sharing in a Network Environment." Library Journal, February 1, 1980.
- Epstein, Hank and Susan Baerg Epstein. The Effective Use of Automation in Wisconsin Libraries, 1981-1985. Costa Mesa, California: Information Transform Industries, 1980.
- The Use of On-line Technology in Connecticut Libraries. 1980-1985. Cost Mesa, California; Information Transform Industries, 1980.



- Ferguson, Sarah Anne. An Automated On-line Circulation Subsystem; The Dallas County Community College District's Pilot Project. Dallas, Texas, 1978.
- Gilman, Kenneth L. Computer Resource Guide for Nonprofits. San Francisco, California: Public Management Institute, 1981.
- Gorin, Robert S. and Ronald A. Kanen. Florida Library Information Network Project: A Comparative Study of OCLC, TWX, U.S. Mail and Closed Circuit Teletype. Tallahassee, State Library of Florida, 1981.
- Gorman, Michael. The Economics of Library Automation Univ. of Illinois, Graduate School of Library Science, 1977, p.122-133.
- Information Systems Consultants Incorporated. A Report on a Study to Automate CONSUL Libraries and Link the Systems. 1981 (In preparation).
- "International Symposium on the Union Catalog--A Summary Report" RTSD Newsletter. July/August 1981, p.37-40.
- "Kellogg Grant Aids Michigan Build Online State Catalog." Library Journal, May 15, 1981. p.1024.
- Klene, Joanne. "Networking: A Reality in Illinois." Illinois Libraries, March 1978.
- Knight Report, SEE Wiederkehr, Robert R.V.
- Lanese, Lewis L. Automated Circulation Control and an Integrated Computer System for the Southwestern Connecticut Library Council--Final Report. Norwalk, Connecticut, Lewis L. Lanese, 1979.
- Mathews, Joseph R. Automated Circulation: Planning for a Region. Library Journal Special Report No. 19. Bowker, 1981.
- Choosing an Automated Library System: A Planning Guide. ALA, 1980.
- "Missouri Library Network to Build Biblio Database". Library Journal, December 1, 1981, p.2270 ff.
- NELINET Report SEE Basinski, William L.
- "Online Catalogs at NELA/Sturbridge", LJ Hotline, Sept. 28, 1981, p.5.
- Pierce, Anton R. and Joe K. Taylor. "A Model for Cost Comparison of Automated Cataloging Systems". Journal of Library Automation. March, 1978, pp. 6-23.

Request for Proposals for a Statewide Data Base and CPM Catalog for the State of Wisconsin. Madison, Wisconsin: Division for Management, Planning and Federal Assistance, July, 1981.

The Computer Company SEE Computer Company.

Requiem for the Card Catalog: Management Issues in Automated Cataloging. Greenwood Press, 1979.

RMG Consultants, Inc. Plans for Procurement and Implementation of Automated Systems for the Central-Western Massachusetts Regional Library Systems. Chicago, 1981.

Robinson, Barbara M. "Cooperation and Competition among Library Networks". Journal of the American Society for Information Science, November, 1980, pp. 414-424.

Rockman, Ilene F. "The Potential of On-line Circulation Systems as Catalogs: An Introduction." RQ, Fall 1980, pp.39-58.

"Special Report: Closing the Catalog". LJ Hotline. November 14, 1977, pp.2-7.

Stevens, Norman D. "Library Networks and Resource Sharing in the United States: An Historical and Philosophical Overview". Journal of the American Society for Information Science, November 1980, pp. 405-412.

"To the Computer and Back: Retreat in Maryland". LJ Hotline, October 5, 1981, p. 5.

University of the State of New York. State Education Department. New York State Library. A Library Automation Plan for New York State: Discussion Draft. Albany, New York, June 1981.

West Virginia Library Commission. West Virginia Union Catalog Handbook (All About CATfiche). Charleston, West Virginia, Rev. Ed., 1979.

West Virginia State Library Combining REMARC and Mini MARC." REMAR
Database News. June 1981., p.1ff.

Wiederkehr, Robert R.V. Alternatives for Future Library Catalogs: A Cost Model. Final report prepared for Association of Research Libraries. Rockville, Maryland: King Research, Inc., June 1980.

Williamson, Nancy. "Is There a Catalog in Your Future? Access to Information in the Year 2006". RSTD Newsletter. September/October, 1981, pp.46-47.

STATES AND REGIONS IN DEPTH

After initial research, the Task Force sought out and examined in greater detail information describing specific states and regions. The following summaries are representative of Task Force interpretations of this information:

COLORADO

NEBRASKA

NEW JERSEY

PROJECT LEAP

VIRGINIA

Information on other states and regions surveyed for this purpose will be found in Task Force minutes.

COLORADO

The initial Colorado data base was developed from OCLC records, machine generated tapes of local libraries and catalog cards forwarded for inclusion. The project included a pilot issue of a COM catalog prior to upgrading records to MARC format.

Data base	1979	324,690 unique records
Data base	1981	810,000 (est.) unique records

The intent of the Colorado Union Catalog (CUC) was to develop and maintain a Colorado bibliographic data base of unique titles and to produce a hard copy catalog until online access was possible. Colorado has discontinued the program in favor of developing an online catalog for the five largest library systems and mounting the database on computers within library regions.

Colorado libraries use the Bibliographical Center for Research (BCR) manual catalog for pre-1976 imprints. This manual file was closed in 1977 but still serves as a valuable source of locations for older publications.

NEBRASKA

The Nebraska State Library Commission issues a COM catalog, NEUCAT, to all contributing members. The catalog developed as follows:

- 1975 Kearney State College and the University of Nebraska joined OCLC.
- 1975 NEBASE Consortium secured OCLC services for libraries. By 1980, NEBASE had 18 members. NEBASE members no longer supply cards for the union catalog.
- 1977 Nebraska Library Commission created a union list of state community college holdings. Shelflists were microfilmed, converted to machine readable form and issued as a COM catalog of 55,000 records in October.
- 1977 Union catalog staff began to check incoming union list cards against COM bibliographic data base. Titles that matched data base records were added by LC number, ISBN number or vendor record number. Titles that did not match were searched again in several months; if no data base record was found, the card was filed in the manual union catalog.
- 1979 First edition of NEUCAT released; 53 libraries contributed holdings.

NEUCAT is the first source consulted for interlibrary loan. The COM catalog has introduced local access to a statewide data base. Copies are distributed to the Bibliographic Center for Research and other states. NEUCAT has reduced ILL time and future uses of the data base, such as local circulation control, are predicted. The manual union catalog is consulted only for titles not listed in NEUCAT; subsequently, these titles are added to the data base.

NEW JERSEY

New Jersey issued a Task Force report outlining an automation policy and steps toward an online union catalog. However, changes in LSCA funding altered plans so that certain portions of the proposal have not been implemented as set forth below.

PHASE I

COM catalog based on OCLC monographic records

Expand New Jersey OCLC membership

PHASE II

Purchase MARC II acquisition records

Merge non-OCLC MARC II records with data base

Expand New Jersey OCLC membership

PHASE III

Merge MARC II serials records and MARC II compatible circulation control records with data base

Retrospective conversion of selected libraries to include cataloging records for last 5-10 years of current holdings

PHASE IV

Transfer data base to a centralized automated location with online access for selected libraries

Issue COM catalog for libraries without online capability

Retrospective conversion via data base to build circulation control system records.

PROJECT LEAP

Member libraries: Hamden, Cheshire, North Haven, West Haven and Wallingford, CT.

Investment costs	\$508,943 (cumulative 1977 - 81)
Maintenance costs	46,647 (1980-82)
	52,022 (projected 1981-82)
LEAP assessment**	3,400 (1980-82)
	3,345 (projected 1981-82)

**Each library pays annual LEAP assessment and purchases bar code labels, telephone data cables, terminal maintenance and capital equipment directly. LEAP directors perform administrative duties.

Project LEAP - Library Exchange Aids Patrons was devised to combine the library resources of five towns to create a collection totaling 442,607 volumes. These materials would be made available to the 148,800 residents in a 97 square mile radius. Member libraries acquired a CLSI circulation system, established a data base and initiated online circulation control.

LEAP libraries have experienced an increase in circulation of materials while reducing staff hours devoted to this activity by 45%. The LEAP system allows users to borrow directly from the lending library or to have the item delivered by Connecticar, a delivery service to libraries. While the system has reduced circulation costs and increased user satisfaction, it has increased data base maintenance costs. It was felt that real cost savings would occur when all functions - cataloging and circulation - were integrated.

VIRGINIA

The State Library developed the initial Catalog of Virginia Library Resources (CAVALIR) by merging the OCLC records of 22 academic libraries. The database created by these records consisted of 315,000 (est.) unique titles. During 1980, public libraries started to add their holdings to the data base and 17 libraries are now utilizing online terminals for retrospective conversion. The database has been upgraded to MARC standards to eliminate duplicate records and the fourth edition of CAVALIR will include 1,042,902 unique titles in 61 academic and public libraries.

CAVALIR serves as the principal ILL tool for libraries without OCLC terminals. Introduction of the microform union catalog has improved cataloging practices and provided a valuable resource for bibliographic research.

Virginia provided production statistics to show that 10% of records are duplicated within a library. 4.36 entries (main, added, subject) are generated for each title in the database. CAVALIR is the only statewide union catalog that utilizes online conversion and this capability provides a union list to users.